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Publication date:
2018

Document version
Publisher's PDF, also known as Version of record

Document license:
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Citation for published version (APA):
Carmo, L. P., Bouzalas, I., Nielsen, L. R., Alban, L. M., da Costa, P. M., Müntener, C., Schüpbach-Regula, G., Abreu, Y., & Magouras, I. (2018). *Expert opinion on livestock antimicrobial usage indications and patterns in Denmark, Portugal and Switzerland*. 1. Poster session presented at The 15th International Symposium of Veterinary Epidemiology and Economics, Chiang Mai, Thailand.



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Expert opinion on livestock antimicrobial usage indications and patterns in Denmark, Portugal and Switzerland

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Background and Objectives

- To foster prudent antimicrobial use (AMU) in livestock, a thorough understanding of the patterns and indications for treatment is required
- The objectives were to: (1) investigate temporal AMU patterns throughout the production cycles and the indications for specific antimicrobial substances, within four common livestock sectors; (2) compare results between countries

Materials and Methods

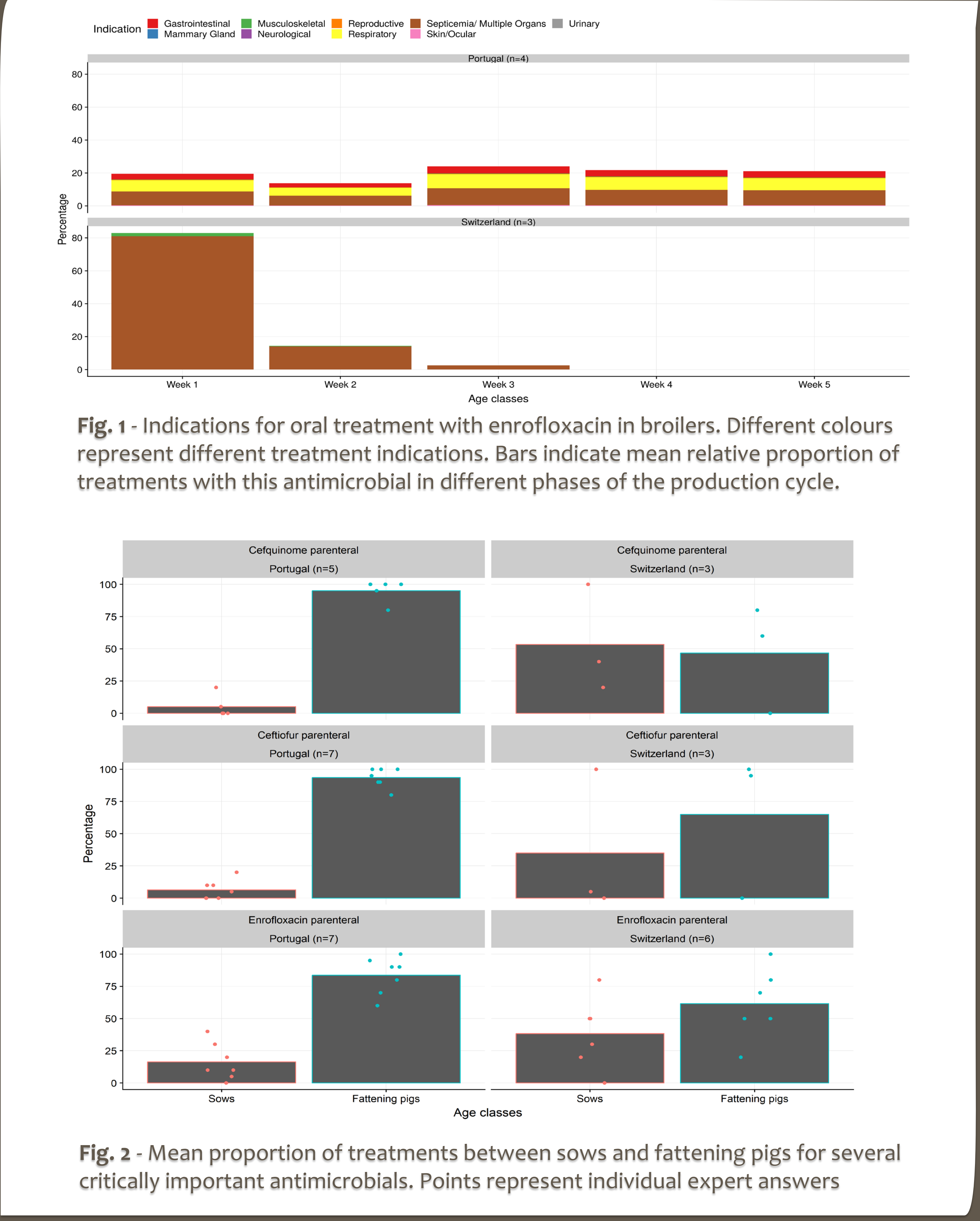
- Expert opinion deemed as the most appropriate method to collect data with such detail
- Veterinary experts (n=67) from different livestock sectors (broilers, pigs, dairy cattle and veal/fattening calves) and countries (Denmark, Portugal and Switzerland) replied to a questionnaire

Results

- Large differences were found regarding antimicrobial substances licensed in each country
- Between- and within-country variations exist regarding temporal distributions of treatments and indications for use (Fig. 1)
- These differences hold true for several critically important antimicrobials, which is of particular concern (Fig. 2)
- A web-application was created to show all results in an interactive fashion

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- ## Key messages
- We recommend to establish and promote treatment guidelines and invest in disease prevention during critical moments of the production cycle to avoid undifferentiated use of antimicrobials
 - Discrepancies between countries should be further investigated to better understand the factors underlying the identified patterns and to distinguish prudent from non-prudent use
 - These results can inform decision-making with the objective of fostering prudent AMU in the livestock setting

